

<p><b>2000-366819/32</b>      A14 F09 (A97)      <b>BADI 1998.11.05</b>  BASF AG      *DE 19851024-A1  1998.11.05 1998-1051024(+1998DE-1051024) (2000.05.11) C08F  26/00, D21H 17/34, 21/10, 21/18  Aqueous dispersion for papermaking comprises water-soluble N-vinyl formamide and/or N-vinyl acetamide polymers and an incompatible polymer dispersant  C2000-110922  Addnl. Data:    NEGELE A, GAUWEILER W, MEIXNER H, MAHR N, RUEBENACKER M</p>	<p>A(2-A3, 4-D, 7-B3, 10-B5, 12-W6B, 12-W12C) F(5-A6C)</p> <p>above dispersions by radically polymerizing the components at 30-95°C in water.</p> <p><u>USE</u>  As a dehydration, flocking or retention agent, wet and dry breaking limit material and fixer in paper production (all claimed)..</p> <p><u>ADVANTAGE</u>  The properties of the obtained paper are improved.</p> <p><u>SPECIFIC MATERIALS</u>  (a) is an N-vinyl formamide homopolymer and the units are converted to give a (partially) vinyl amine unit-containing polymer by acid or base hydrolysis.</p> <p><u>EXAMPLE</u>  212 g of a dispersion prepared from 1200 g water, 5 g Na dihydrogen phosphate dihydrate, 150 g polyvinyl pyrrolidone, 150 g polyethylene glycol, 500 g N-vinyl formamide and 2.5 g 2,2'-azobis-</p>
<p><u>NOVELTY</u>  Aqueous dispersion of water-soluble N-vinyl formamide and/or N-vinyl acetamide polymers comprises:  (a) 5-80 pts. wt. of a polymer of average particle size 50 nm to 2 micron and comprising N-vinyl formamide and/or N-vinyl acetamide units;  (b) 1-50 pts. wt. of a polymer dispersant that is incompatible with (a) in aqueous solution; and  (c) 100 pts. wt. water.</p> <p><u>DETAILED DESCRIPTION</u>  An INDEPENDENT CLAIM is included for the production of the</p>	<p>DE 19851024-A+</p>

(2-aminopropane)dihydrochloride in 100 g water (solids content 41 %, viscosity 3075 mPa.s, K value 138, residual N-vinyl formamide 0.2%) was mixed with 2.8 g HCl and reacted to give a polymer with 8.5% vinyl amine units (viscosity 4800 mPa.s, average particle size 200 nm, mol. wt. 500,000). When used at 0.08% in papermaking, the water removal time was 23 s, cf. 28 s with a polyamideamine according to US 4144123.

#### TECHNOLOGY FOCUS

Polymers - Preferred Components: (b) is polyethylene glycol, polypropylene glycol, ethylene glycol/propylene glycol copolymer, PVA, PVOH, polyvinyl pyridine, polyvinyl imidazole, polyvinyl succinimide, polydiallyl dimethyl ammonium chloride and/or polyethylene imine (claimed).  
Preferred Process: The preparation is at 40-70°C and is in the presence of 0.001-5.0 (0.05-2.0) wt.% azo compounds (claimed).  
Preferred Composition: The dispersion contains 10-50 pts. wt. (a) and 5-40 pts. wt. (b) (claimed).  
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